REMARKS/ARGUMENTS

Status of the Claims

Upon entry of the present amendment, claims 1-7 and 14-22 are pending. New claims 14-22 are added, and claims 8-13 are canceled without prejudice to renewal.

New claim 14 sets forth a method of increasing the sensitivity of diagnosing Crohn's disease. Support is found, for example, on page 2, line 28 through page 3, line 9; and in Table 1 on page 7 where detection of the presence of IgA anti-OmpC antibodies increased the sensitivity of detection of the ASCA panel by an additional 20% and resulted in a cumulative detection sensitivity of 76%.

New claim 15 sets forth that the presence or absence of IgA anti-OmpC antibodies is detected in combination with detecting the presence or absence of antibodies against one or more microbial antigens other than OmpC associated with Crohn's disease. Support is found, for example, on page 2, line 28 through page 3, line 9; and in Table 1 on page 7.

Support for new claim 16 is found, for example, in originally filed claim 5 and in Table 1 on page 7.

New claims 17 and 18 set forth methods of diagnosing Crohn's disease by detecting the presence or absence of IgA anti-OmpC antibodies and IgA ASCA. Support is found, for example, in originally filed claims 1, 2 and 5, and in Table 1 on page 7.

New claim 19 finds support in originally filed claim 3.

New claim 20 finds support in originally filed claim 4.

New claim 21 finds support in originally filed claim 6.

New claim 22 finds support, for example, in Tables 1 and 2 on page 7.

Restriction Requirement

Applicants respectfully do not agree with the Examiner. However, in order to further prosecution of the present application, claims 8-13 have been canceled without prejudice to renewal. Applicants expressly reserve the right to prosecute the subject matter of claims 8-13 in a subsequently filed divisional application.

Rejection under 35 U.S.C. § 112, first paragraph, enablement requirement

In making this rejection, the Examiner has quoted the language of 35 U.S.C. § 112, second paragraph, but appears to make arguments based on the enablement requirement of 35 U.S.C. § 112, first paragraph.

The Examiner alleges that the presence of IgA anti-OmpC in about 55% of patients having Crohn's disease, as indicated in Table 2 of the specification, is not sufficient to establish adequate correlation between the presence of IgA anti-OmpC antibodies and the diagnosis of Crohn's disease. Table 2 also informs that anti-*Saccharomyces cerevisiae* antibodies (ASCA) are present in about 56% of patients in Crohn's disease, a percentage of Crohn's disease patients comparable to those having IgA anti-OmpC antibodies.

Sensitivity

The specification teaches that anti-*Saccharomyces cerevisiae* antibodies are a known differential marker for Crohn's disease for differentiating from ulcerative colitis (*see*, page 17, lines 19-23). Further, as shown in the attached published information from the Federal Register (Exhibit A) and from the Center for Devices and Radiological Health (Exhibit B), the United States Food and Drug Administration (FDA) recognizes detecting the presence or absence of ASCA as an aid in the diagnosis of Crohn's disease.[1] The FDA publications do not disclose or suggest that in order for detecting the presence or absence of ASCA to be useful in

[1] Exhibit A: 65 Fed. Reg. 70305-70307 (Nov. 22, 2000), "Immunology and Microbiology Devices; Classification of Anti-Saccharomyces cerevisiae (S. cerevisiae) Antibody (ASCA) Test Systems" (relevant passages highlighted); Exhibit B: "Class II Special Control Guidance Document for Anti-*Saccaromyces cervisiae* (*S. cerevisiae*) Antibody (ASCA) Premarket Notifications," issued on August 23, 2000, (relevant passages highlighted) *both documents available through* www.fda.gov.

the diagnosis of Crohn's disease, the detection of further IgA antibodies for additional microbial antigens is necessary. The FDA publications represent the standard of those of skill in the art for the required prevalence of a particular microbial antigen in individuals having Crohn's disease for its use as an aid in the diagnosis of Crohn's disease. Because anti-*Saccharomyces cerevisiae* antibodies (ASCA) are present in a percentage of Crohn's disease patients comparable to those having IgA anti-OmpC antibodies, it follows that detecting the presence or absence of IgA anti-OmpC antibodies would also be recognized by the FDA as a useful aid in the diagnosis of Crohn's disease.

Specificity

Detecting for the presence or absence of IgA anti-OmpC antibodies also provides an independent diagnostic marker for diagnosing the presence of Crohn's disease. This speaks to the specificity of the method. Whereas detecting for the presence of IgA anti-OmpC antibodies has a *sensitivity* of presence in about 55% of patients having Crohn's disease, the *specificity* of the method is measured differently. In a sample of about 28 individuals without Crohn's disease, only 1 tested positive for IgA anti-OmpC antibodies (*see*, Figure 4 and page 6, lines 4-11). The present method elicits very few falsely positive indications of Crohn's disease and therefore has a high *specificity*. Accordingly, when the presence of IgA anti-OmpC antibodies is detected, it is independently indicative that the patient has Crohn's disease.

CONCLUSION

The Amendment mailed February 8, 2005, inadvertently left off claims 12 and 13 from the listing of claims. This Amendment is merely to provide a correct and complete set of claims and status identifiers for all the claims. Applicants believe the amendment is now compliant and request entry of the claim amendments.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 925-472-5000.

Respectfully submitted,

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Attachments
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